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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,086	04/20/2006	Rene Burgermeister	F8975	1012
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EXAMINER				
BADR, HAMID R				
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1794				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/566,086

Applicant(s)

BURGERMEISTER ET AL.

Examiner

HAMID R. BADR

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-18, 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicants' amendment filed on 7/15/2009 is acknowledged.

Claims 13-18, and 20-29 are being considered on the merits.

Claim Objections

Claims 22 and 23 are objected to for "characterized in that". This phrase is not commonly used in the U.S. patent practice. It is suggested to use "wherein" instead.

Correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim addressing the cultivation of wild yeast through a natural inoculation from ambient air is not enabling. Case law holds that applicant's specification must be "commensurately enabling [regarding the scope of the claims]" *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. App. Inter. 1990). Otherwise **undue experimentation** would be involved in determining how to practice and use applicant's invention. The test for undue experimentation as to whether or not all compounds within the scope of claim 14 can be

used as claimed and whether claim 14 meets the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. App. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400, 1404 (Fed.Cir. 1988). Upon applying this test to claim 14, it is believed that undue experimentation **would** be required because:

(a) *The quantity of experimentation necessary* is **great** since claim 14 reads on using any wild yeast in the ambient air while the specification discloses baker's yeast. This would not be result in a repeatable, consistent method, given the variability of wild yeast.

(b) There is **no direction or guidance presented** for how to use ambient air to inoculate a farinaceous dough.

(c) There is an **absence of working examples** concerning inoculating a dough with wild yeast from ambient air. .

In light of the above factors, it is seen that undue experimentation would be necessary to make and use the invention of claim 14.

2. Claims 13-18, and 20-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 13 recites "cooling said thick-liquid to solid paste or said suspension to a temperature of about 0C to 4C within 72 hours". While the specification supports the 2C-4C cooling range; there is no support for cooling to 0C.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14, 20, 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 14 is indefinite for "which is inoculated naturally from the ambient air". It is unclear what is meant by the phrase. It is not clear what the applicant regards as the invention.

6. Claim 20 is indefinite for the phrase "in accordance with predetermined direct dough preparation recommendation". It is not clear what is meant by this phrase. It is not clear what the applicant regards as the invention.

7. Claim 29 recites the limitation "gluten of the thermally modified ground products" in claim 13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 13-18 and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schou et al. (EP 0 152 943; hereinafter R1) in view of Barber et al. (1992, Storage of packaged white bread; herein after R2).

10. R1 discloses a method of making bread where the cereal flour or mixture of flours is precooked by extrusion. The extrusion is carried out at temperature range of 150-180C. A composition is made from about 40% of rye meal and about 60% of wheat bran. (Abstract).

11. R1 teaches of a method in which a mixture of wheat flour (30%) and wheat bran (70%) is extruded at 150C. After the extrusion process, the mixture is pulverized in a mill. Rye meal is then mixed with more wheat flour, water, dough conditioner (acidifying agent), baker's yeast, and approximately 3% of the mixture baked into a bread. The mixture contains 10 parts by weight of the extruded, pulverized product. (Example 2, pages 5-6). Given that the process temperature is above the gelatinization temperature of starch, it is obvious that gluten in the thermally modified product will be denatured as presently claimed. The level of incorporation of the thermally processed cereal flour can be calculated and optimized for desired results by an artisan.

12. Given that water, yeast and a thermally modified cereal flour are mixed and noting that sponge method is known in the art, it is obvious that a sponge can be made to contain thermally modified cereal flour as disclosed by R1.

13. R1 is silent regarding cooling the prepared sponge at refrigeration temperature.

14. R2 discloses that refrigerated sponge can be prepared by preparing a sponge at 28C and fermenting for 60 minutes and keeping the prepared sponge at 8C for 22 hours. (page 443, Fig 1). Keeping a prepared sponge at refrigeration for extended periods is also known and practiced in the art. It is obvious that baker's yeast fermentative activity is inhibited by cooling to 0C to 4C as presently claimed.

15. R2 discloses that acetic and lactic acid levels found in refrigerated sponge (RS) is of similar order to those published for industrial sponge used in conventional wheat flour breadmaking with relatively high percentages of yeast. (page 444, Results and discussion, first paragraph). R2 also discloses that refrigerated sponge had very low lactic acid content (page 444, lactic and acetic acid content). It is noted that keeping the sponge at low temperature (refrigeration) will lower the fermentative activity of yeast and other naturally present microorganisms in flour, therefore, it can be kept for extended periods of time. The sponge refrigeration period of 72 hours (3 days), as presently claimed, is known and practiced in the art.

16. Sponge and direct dough methods as presently claimed are also known in the art. Levels of incorporation of sponge into the final dough are also known in the art.

17. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make a sponge dough containing thermally processed cereal flour and refrigerate the sponge to lower the fermentation rate at low temperature of refrigeration. One would do so to be able to keep the sponge for a longer period of time having controlled the fermentation. Absent any evidence and based on the combined teachings of the cited references, there would be a reasonable expectation of success in making such a sponge.

18. **Claims 13-18 and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Despre et al. (EP 0 948 904; hereinafter R3) in view of Barber et al. (1992, Storage of packaged white bread; herein after R2).**

19. R3 discloses a process for preparing functional flour by hydrothermally treating the flour, drying the process flour and grinding it to obtain a functional flour. The apparatus for processing the flour is also described. (Abstract, [0011]).
20. R3 describes a method wherein corn flour is treated at 220C where 37% starch gelatinization takes place. The product is ground to a particle size of 120 micron. The thermally treated flour is then used in making a bread containing 95% flour, 5% treated flour, 65% water, 4% sugar, 3% yeast, 1% salt and calcium propionate. The dough is then baked into a bread. (Examples 1-2, pages 6-7).
21. R3 also claims a functional flour prepared by hydrothermally treating flour and drying the product at about 230C. (Claim 1, page 9).
22. R3 discloses that the product can have a particle range of 75-200 micron, in which 20-95% starch can be gelatinized. [0018, 0019].
23. R3 discloses that the pre-dough concentrate can be used at 5% (Example 2, Table 4, second row). Given that the thermally treated cereal flour can be used in an already known sponge process, it is obvious that the incorporation of the treated flour can be optimized for the desired results. The thermally treated flour is used in dough formulations for its increased water absorption rate.
24. R3 is silent regarding the refrigerated storage of the prepared sponge.
25. R2 discloses that refrigerated sponge can be prepared by preparing a sponge at 28C and fermenting for 60 minutes and keeping the prepared sponge at 8C for 22 hours. (page 443, Fig 1). Keeping a prepared sponge at refrigeration for extended

periods is also known and practiced in the art. It is obvious that baker's yeast fermentative activity is inhibited by cooling to 0C to 4C as presently claimed.

26. R2 discloses that acetic and lactic acid levels found in refrigerated sponge (RS) is of similar order to those published for industrial sponge used in conventional wheat flour breadmaking with relatively high percentages of yeast. (page 444, Results and discussion, first paragraph). R2 also discloses that refrigerated sponge had very low lactic acid content (page 444, lactic and acetic acid content). It is noted that keeping the sponge at low temperature (refrigeration) will lower the fermentative activity of yeast and other naturally present microorganisms in flour, therefore, it can be kept for extended periods of time. The sponge refrigeration period of 72 hours (3 days), as presently claimed, is known and practiced in the art.

27. Sponge and direct dough methods as presently claimed are also known in the art. Levels of incorporation of sponge into the final dough are also known in the art.

28. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make a sponge dough containing thermally processed cereal flour and refrigerate the sponge to lower the fermentation rate at low temperature of refrigeration. One would do so to be able to keep the sponge for a longer period of time having controlled the fermentation. Absent any evidence and based on the combined teachings of the cited references, there would be a reasonable expectation of success in making such a sponge.

29. **Claim13-18 and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolt et al. (US 5,433,966; hereinafter R4) in view of Barber et al. (1992, Storage of packaged white bread; herein after R2).**

30. R4 discloses thermally treating wheat flour at about 50-130C. The treated flour is then baked to prepare the bread. (Abstract)

31. R4 teaches how to prepare French hard rolls by treating flour at 150C and mixing it with water, yeast and salt. (Example 11 and 12).

32. R4 discloses processing wheat flour by heating it in the range of 128-255C. (Col. 5, lines 51-68).

33. It is obvious to use the thermally treated flour in a sponge dough whose formulation, preparation and used are known in the art.

34. R4 is silent regarding the refrigerated storage of the prepared sponge.

35. R2 discloses that refrigerated sponge can be prepared by preparing a sponge at 28C and fermenting for 60 minutes and keeping the prepared sponge at 8C for 22 hours. (page 443, Fig 1). Keeping a prepared sponge at refrigeration for extended periods is also known and practiced in the art. It is obvious that baker's yeast fermentative activity is inhibited by cooling to 0C to 4C as presently claimed.

36. R2 discloses that acetic and lactic acid levels found in refrigerated sponge (RS) is of similar order to those published for industrial sponge used in conventional wheat flour breadmaking with relatively high percentages of yeast. (page 444, Results and discussion, first paragraph). R2 also discloses that refrigerated sponge had very low lactic acid content (page 444, lactic and acetic acid content). It is noted that keeping the

sponge at low temperature (refrigeration) will lower the fermentative activity of yeast and other naturally present microorganisms in flour, therefore, it can be kept for extended periods of time. The sponge refrigeration period of 72 hours (3 days), as presently claimed, is known and practiced in the art.

37. Sponge and direct dough methods as presently claimed are also known in the art. Levels of incorporation of sponge into the final dough are also known in the art.

38. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make a sponge dough containing thermally processed cereal flour and refrigerate the sponge to lower the fermentation rate at low temperature of refrigeration. One would do so to be able to keep the sponge for a longer period of time having controlled the fermentation. Absent any evidence and based on the combined teachings of the cited references, there would be a reasonable expectation of success in making such a sponge.

Response to Arguments

Applicants arguments have been reviewed thoroughly. These arguments are not deemed persuasive for the following reasons.

1. Applicants argue that the enablement rejection under 35 U.S.C 112 first paragraph is not a proper because there is no undue experimentation involved. To support this position, Applicants are presenting instructions on how to make a yeast starter from a web site.

a. Firstly, the specification itself should be enabling for what is claimed. It appears that there is not disclosure in the instant specification to enable the inoculation of wild

yeast through ambient air. If there were such a disclosure, why was it necessary to present some instructions from a web site.

b. The subject matter as presented by the Applicants (through a web site) is not scientifically sound. It is scientifically established that a spontaneous fermentation of a mixture of flour and water takes place at ambient temperature due to the action of wild yeasts and lactic acid bacteria already contained in the cereal flour. Such a fermentation has been known by man for hundreds of years. However, the sour dough is prepared when the right proportions of flour and water are mixed and kept at a proper temperature regardless of being exposed to ambient air or to vacuum.

2. Applicants argue about the obviousness rejections as addressed by the Office action.

a. Claims 1-12, and 19 have been cancelled. The remaining amended claims and the newly added claims have been rejected under new grounds of rejection.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr
Examiner
Art Unit 1794

/Keith D. Hendricks/
Supervisory Patent Examiner, Art Unit 1794